

## Earth Observatory and Worldview Joint Exercise

### Objective:

Learn to access and use Earth Observatory and Worldview.

Earth Observatory shares images and stories: <http://earthobservatory.gov/>

Worldview provides access to near real-time NASA satellite images and data sets: <http://worldview.earthdata.nasa.gov/>

### Part 1: Earth Observatory

1. Go to Earth Observatory page, Tracking Dust Across the Atlantic:  
<http://earthobservatory.nasa.gov/IOTD/view.php?id=81864>
2. Explore the website for about 5 minutes, specifically the following sections: Images, Global Maps, and Features
3. Use the search option (located on the top right side of the page) to search for an air quality event in your area of interest. Use key words such as smoke, dust, or pollution along with the name of the geographical area.

For example, “Smoke and fires in Australia” provides the following results:  
<http://earthobservatory.nasa.gov/Search/index.php?hq=site%3Aearthobservatory.nasa.gov%2FIOTD%2F&q=smoke+and+fires+in+Australia>

If you cannot find a relevant event in your region, look in another region.

4. Select an event that can affect local or regional air quality, and occurred after 8 May 2012. (Images before 8 May 2012 are currently unavailable in Worldview.)
5. Specifically note the date, satellite and sensor, region, event type, parameter displayed, and any other relevant information for your selected air quality event.

## Questions

- a) Which sensor/satellite and data sets have been used in the Earth Observatory story to highlight the selected air quality event?
- b) Can you identify the air quality event type (i.e. fires, dust storm, urban pollution, etc.) by visual inspection of images posted on Earth Observatory?
- c) Can you list two potential applications of the images found on the Earth Observatory?

## Part 2: Worldview

- 1. Go to the Worldview page: <http://worldview.earthdata.nasa.gov/>
- 2. Use the 'Date Selection' at the bottom of the page and go to the date of the air quality event you selected for Part 1.
- 3. Zoom-in on the region of the air quality event using the '+' and '-' sign on the top right side of the page
- 4. Explore the base layer options (top right of the page) to select images from Aqua/MODIS, Terra/MODIS, and Suomi NPP/VIIRS. Display each of the layers one-by-one and note the difference in the features over the selected region.
- 5. Use the date changing arrows to see the progress of the event over several days.

## Questions

- a) What additional information on the selected air quality event did you learn from the Worldview portal that wasn't found on the Earth Observatory page?
- b) Use the 'share this map' feature (on the top right corner of the page) to copy the link and paste it here.
- c) Use the 'take a snapshot' feature (on the top right corner of the page) to save the selected region as KMZ image.